

**REMARKS**

Claims 1-8 are pending in this application. By this Amendment, claims 1, 6 and 8 are amended.

The Office Action rejects claims 1-3 and 5-8 under 35 U.S.C. §102(e) by U.S. Patent 6,105,017 to Kleewein et al. (hereafter Kleewein). The Office Action also rejects claim 4 under 35 U.S.C. §103(a) over Kleewein in view of the article to Lu (hereafter Lu). The rejections are respectfully traversed.

Independent claim 1 recites a database processing method used in a database system arranged in a client-server manner. The method includes a first process of enabling a database server operating at a server to store LOB data processed on a database from the database, in response to a request of a program operating at a client, to a common storage device which is shared, through a network, between the client and the server other than a storage device to which the database is stored, and to respond to the request by transmitting an identifying information which identifies a storage area of the data processed and stored on the common storage device to the program. Independent claim 1 further recites a second process of enabling the program operating at the client to refer to the storage area of the common storage device for the LOB data based on the identifying information including a result of the data processed, to obtain the stored data from the storage area into the program.

The present specification describes that an object of the present invention is to provide a technique of overcoming disadvantages (1) to (3) (described on pages 3 and 4) and speeding up the process of passing data from a database server to a

user application in a database system. See page 4, line 26 - page 5, line 14 of the present specification. A further object is to provide a technique of simplifying description of source codes used for treating data to be managed by the database in a user application. Still yet a further object is to provide a technique of speeding up passing of plural data units between a database server and a user application in a database system.

The present specification provides that the server stores LOB data to the common storage to which the client refer for the LOB data based on the identifying information including a result of the data processed, to obtain the stored data from the storage area into the program. In other words, it may not be necessary for the server to transfer the LOB data to the client. See Appendix A and B. See also page 12, line 8-23 and page 10, line 26 to page 13, line 4 of the present specification as support for the amended features. The LOB and BLOB data are described on page 1 of the present specification.

The identifying information which identifies a storage area of the data processed and stored on the common storage device according to the present invention is not an identification information of the LOB stored in a column of the database as in Kleewein. As such, Kleewein does not teach or suggest all the features of independent claim 1.

Additionally, Appendix C (Kleewein) shows the memory 24 but the memory not shared among a plurality of computers (Fig. 1) and connected to the database DS2 through a bus. Moreover, Kleewein teaches to transfer LOB data to the Application (see column 6, lines 51-60). As such, it may be similar to the techniques

explained in the description on pages 1 and 2 of the present specification. This does not transfer LOB data from the database server to the Application. As such, Kleewein does not teach or suggest the claimed to respond to the request by transmitting an identifying information which identifies a storage area of the data processed and stored on the common storage device to the program.

Lu teaches a parallel database system for processing a plurality of tasks by use of the load-balanced task-oriented database query processing approach. Thus, Lu does not suggest the features of claim 1 missing from Kleewein.

Accordingly, Kleewein and Lu do not teach or suggest all the features of independent claim 1. Independent claim 1 therefore defines patentable subject matter. Each of independent claims 6 and 8 defines patentable subject matter for at least similar reasons as claim 1. Claims 2-5 depend from claim 1 and claim 7 depends from claim 6 and therefore defines patentable subject matter at least for this reason. Withdrawal of the outstanding rejections is respectfully requested.

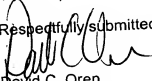
### **CONCLUSION**

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-8 are respectfully requested.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the

deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-  
2135 (referencing case no. 500.37238CX1).

Respectfully submitted,

  
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Attachment:  
Appendix A-C

FIG. 1

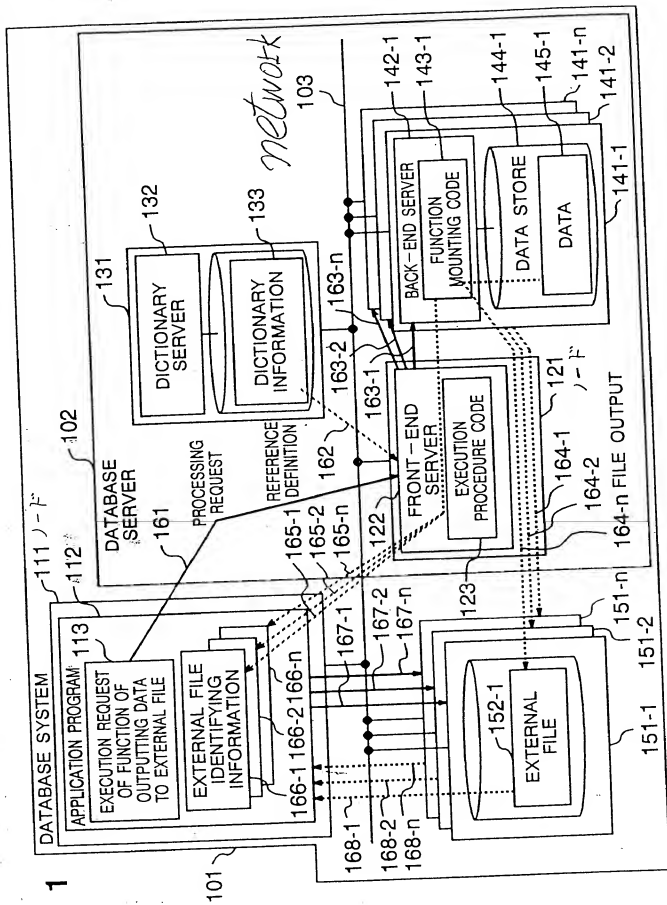
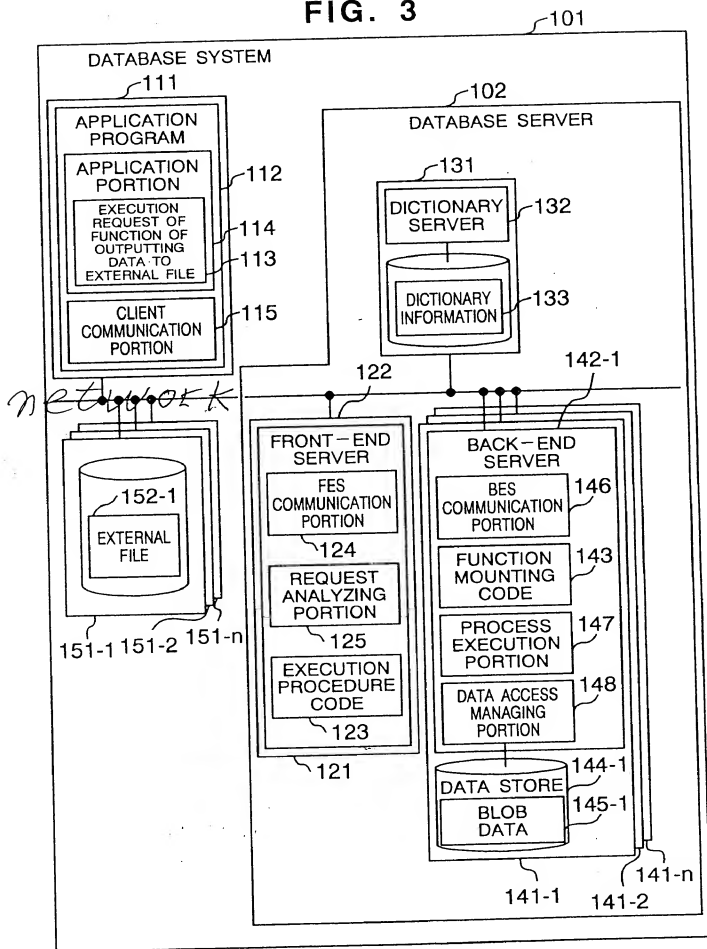


FIG. 3





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## United States Patent [19]

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6,105,017

Kleewein et al.

[45] Date of Patent:

Aug. 15, 2000

[54] METHOD AND APPARATUS FOR DEFERRING LARGE OBJECT RETRIEVALS FROM A REMOTE DATABASE IN A HETEROGENEOUS DATABASE SYSTEM

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[21] Appl. No.: 08/929,642

[22] Filed: Sep. 15, 1997

[51] Int. Cl.<sup>7</sup> ..... G06F 17/30

[52] U.S. Cl. .... 707/2; 707/10

[58] Field of Search ..... 707/2, 10

## [56] References Cited

## U.S. PATENT DOCUMENTS

5,794,250 8/1998 Carino, Jr. et al. .... 707/104  
5,864,843 1/1999 Carino, Jr. et al. .... 707/4

## OTHER PUBLICATIONS

Stonebraker, M. and Olson M. "Large Object Support in Postgres", Ninth International Conference on Data Engineering, Apr. 1993, pp. 355-362.

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[57]

## ABSTRACT

A database management method enables an improved efficiency processing action in a computer wherein manipulation of data from a table is required in accord with a query request, wherein the table is stored remotely from said computer and at least some data in the table includes large data objects (LOBs). The method includes the steps of: responding to the request by transmitting a query to the table; configuring a result set from the table in response to the query, wherein the result set includes one or more unique identifiers of any LOB data associated with the result set; receiving the result set and performing a data manipulation action on data contained in the result set to form a response; transferring the response to the query requester; and accessing LOB data from the table that is referenced by the one or more unique identifiers in the result set and causing transfer of the LOB data to the query requester.

12 Claims, 4 Drawing Sheets

